

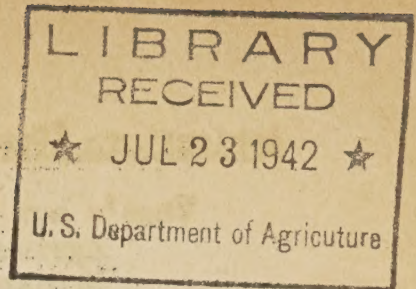
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CURRENT LITERATURE
in
AGRICULTURAL ENGINEERING

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March, 1942

This is the final issue of Current Literature in Agricultural Engineering as such. Henceforth it will be issued as Section B of Bibliography of Agriculture issued by the U. S. Department of Agriculture Library.

Accidents.

Check home safety hazards. Wisconsin Agriculturist and farmer.
v.69, no.11. May 30, 1942. p.10.

Power-saw accidents.: Their circumstances and causes. National
safety news. v.45, no.6. June 1942. p.28-29.

There's no place like home--for accidents! American home.
v.28, no.1. June 1942. p.78-81.

Agriculture.

Bio-dynamic farming and gardening: Soil fertility, renewal and
preservation. By Dr. Ehrenfried Pfeiffer. New York.,
Anthroposophic press, 1940. 240p.

Farm research in South Dakota. Fifty-fourth annual report, July 1,
1940 to June 30, 1941. South Dakota agricultural experiment
station. Brookings, S.D., 1942. 96p.

Farming adjustments and agricultural conservation programs in West
Virginia. By F. D. Cornell, jr., and C. W. Crickman.
Morgantown, W. Va., 1942. 40p. West Virginia. Agri-
cultural experiment station. Bulletin no. 304.

Forty-eighth annual report, Agricultural experiment station, Univer-
sity of Minnesota, July 1, 1940 - June 30, 1941. University
Farm, St. Paul, 1942. 95p.

Physical research on problems of soil cultivation. By B. A. Keen.
Endeavor. v.1, no.2. April 1942. p.52-63. Brings
evidence to show that, contrary to deeply ingrained tradition,
crop yields are remarkably insensitive to variations in cultiva-
tion; and that attractive 'capillary tube' theory of movement
of soil moisture is entirely untenable.

Agriculture (Cont'd.).

What's new in farm science. Part 2. Annual report of the Director, Agricultural experiment station, University of Wisconsin. Madison, Wis., 1942. 87p. Wisconsin. Agricultural experiment station. Bulletin no. 455.

Why not a national agricultural museum? New Zealand farmer weekly. v.63, no.1, March 12, 1942. p.6-7. Tells of what has been done in Britain in way of building up agricultural museums and discusses what might be done to build up National Museum of Agriculture in which not only Britain, but Dominions and Colonies would be represented.

Air conditioning.

Profitable air-conditioning. By J. Francis Cooper. American poultry journal. v.73, no.6. June 1942. p.3, 27-28.

Air raid protection.

Aerial bombardment protection. By Harold E. Wessman and William A. Rose. New York., John Wiley & Sons, Inc., 1942. 372p.

Air-raid shelter for fifty people. Engineering news-record. v.128, no.23. June 4, 1942. p.904-905. Built to accomodate 50 people, air-raid shelter has 24-in. thick walls and roof with double reinforcing; floor is 12-in slab with 1/2-in bars on 12-in. centers each way. Structure is designed for earthfill covering surmounted by 3-ft. thick burster slab.

Classified sources of defense blackout devices. Electrical world. v.117, no.2. January 10, 1942. p.50-53. Producers making equipment and materials related to those found appropriate for control of light sources during air raids listed here--Many already undertaking design of equipment for semi-blackouts.

How to build sabotage and bomb protection. American builder. v.64, no.6. June 1942. p.61, 104.

Alcohol fuel.

Power alcohol. By David Brownlie. Indian engineering. v.111, no.3. March 1942. p.79-80. Discusses new developments.

Reports on alcohol production facilities. Automotive and aviation industries. v.86, no.11. June 1, 1942. p.76.

Barns.

Makeshift barns can help win the war. In Annual report of the
Director, Agricultural experiment station, University of Wisconsin.
Madison, Wis., 1942. p.5-8. Wisconsin.
Agricultural experiment station. Bulletin no. 455.

Belts and belting.

Wartime belting efficiency. By D. C. Miner. Refrigerating
engineering. v.43, no.6. June 1942. p.357-358.
Gives set of specific rules to follow. Immediate repair of
laps, careful checking of tension and running direction, avoidance
of power-wasting idler pulleys, use of endless belts
wherever possible, and importance of regular dressing as
recommended by manufacturer are among points stressed.

Brooders, Electric

Brooding chicks under electric hovers. By J. H. Bruckner and
P. R. Hoff. Revised. Ithaca, N.Y., 1942. 20p.
New York state college of agriculture. Cornell extension
bulletin. Bulletin no. 366.

Building construction.

Field inspectors' check list for building construction. Report of
Subcommittee on structure, Central housing committee on research,
design, and construction. Washington, D.C., U.S. Govt.
print. off., 1942. 68p. National bureau of standards.
Building materials and structures. Report BMS81.

Influence of welded shear reinforcement on the deflection of reinforced
concrete beams. By R. H. Evans. Structural engineer.
v.20, no.5. May 1942. p.61-64.

Wire saves steel in concrete joists. Engineering news-record.
v.128, no.23. June 4, 1942. p.930-932. In new floor-
system design wire has been substituted for steel bars in
reinforcing precast concrete joists. Higher unit stresses
in wire than in steel bars and more economical design to
avoid need for special floor-and-ceiling finish. bring cost of
concrete floors below that of wood construction. This procedure
saves two-thirds of reinforcing steel normally required in
floor system of mass housing project.

Building materials.

Substitutes for critical materials outlines by the Munitions board.
Engineering news-record. v.128, no.20. May 14, 1942.
p.824-825. Critical materials for construction of highways,
bridges and culverts.

Cold storage.

Apple growers favor private cold storage plants. By H. H. Slawson.
Refrigerating engineering. v.43, no.6. June 1942.
p.390, 392, 394, 396.

Concrete.

How to make quality concrete. By R. U. Blasingame. Pennsylv-
vania farmer. v.126, no.12. June 13, 1942. p.16.

Condensers.

Evaporative condensers. By C. M. Deverall. Refrigerating
engineering. v.43, no.6. June 1942. p.361-365.
Part II. Economies contributing to war conservation program.

Cotton.

Texas studies improvement of her cotton through research. By
Simon Williams. Cotton. v.106, no.5. May 1942.
p.74-76. Tells in general terms some of plans taking form
out in Texas to use research, in practical way, to aid vital
part of cotton-textile industry.

Cotton gins and ginning.

Cotton-gin maintenance. By Charles A. Bennett and Francis L.
Gedes. Washington, D.C., 1942. 8p. U.S. Department
of agriculture. Leaflet no. 216.

Crops. (Drying).

Drying eggs a new war industry. By E. H. Stoltz. Farmer's
magazine. v.39, no.6. June 1942. p.7,51.

Dairy Farm equipment.

Dairy engineering. By Arthur W. Farrall. New York, John Wiley
& sons, inc., 1942. 405p.

Drainage.

Proper drainage increases yields. California cultivator.
v.89, no.11. May 30, 1942. p.278.

Three types of airport drainage. Engineering news-record.
v.128, no.23. June 4, 1942. p.906-909. Three
general drainage systems are being used, each of which has
special applications. Data as to amount of pipe required and
the cost of draining field with each of types are given.
Advantages of three types are listed.

Electricity in the home.

Saving electricity in the home. By Harold P. Strand. Popular
science. v.141, no.1. July 1942. p.HW104-HW108.

Electricity on the farm.

Effect of electric lights upon the growth of young chicks. In
Research solves farm problems. Report of the director for
the year ending June 30, 1941. Purdue university, Agri-
cultural experiment station. Lafayette, Ind., 1942.
p.94.

Study of the use and practicability of electric heat for warming
drinking water for livestock. In Research solves farm
problems. Report of the director for the year ending June
30, 1941. Purdue university, Agricultural experiment
station. Lafayette, Ind., 1942. p.28-29.

Use of electric heat in brooding early spring farrowed pigs. In
Research solves farm problems. Report of the director for the
year ending June 30, 1941. Purdue university, Agricultural
experiment station. Lafayette, Ind., 1942. p.29-30.

Use of electricity in brooding chicks. In Research solves farm
problems. Report of the director for the year ending June 30,
1941. Purdue university, Agricultural experiment station.
Lafayette, Ind., 1942. p.26.

Erosion control.

Beach protection measures. By W. C. Hall. Military Engineer.
v.34, no.200. June 1942. p.292-296.

Control of wind erosion on muck lands. By A. F. Gustafson.
Ithaca, N.Y., 1942. 15p. New York state college of
agriculture. Cornell extension bulletin. Bulletin no. 482.

Erosion control on eastern Nebraska farms. By E. H. Doll.
Nebraska Farmer. v.84, no.11. May 30, 1942. p.4,9.

Growing soybeans with minimum erosion. By Dwight D. Smith.
Soil conservation. v.7, no.12. June 1942. p.295-
297, 300.

Prospects for soil conservation. By G. V. Jacks. Endeavor.
v.1, no.1. January 1942. p.33-35.

Wind erosion in the pampas of Argentina. By Manfredo A. L. Reichart.
Soil conservation. v.7, no.12. June 1942. p.298-300.

Evaporation.

Evaporation and consumptive use of water empirical formulae. By Harry F. Blaney and Karl V. Norin. Washington, D.C., U.S. Soil conservation service, Division of Irrigation, 1942. 16p. mimeographed. Paper prepared for the South Pacific meeting of the Section of hydrology, American geophysical union, Pasadena, California, January 16, 1942.

Explosives.

Research in the dynamite industry. By C. A. Woodbury. DuPont magazine. v.36, nos.4-5. April-May, 1942. p.1-5.

Fabrics.

Textile materials used for household purposes by farm families. By Mary E. Frayser. Clemson, S.C., 1942. 15p. South Carolina. Agricultural experiment station. Bulletin no. 341.

Fans.

Some features of propeller fan performance. By Walter L. Upson. Refrigerating engineering. v.43, no.6. June 1942. p.343-346. Author points out that many factors must be considered. Conditions under which fan is expected to operate, its location and surrounding structures are important, and in every fan problem blade shape, pitch, diameter, speed, and now materials and finishes must all be carefully determined.

Farm buildings.

Brush up on your buildings. By L. L. Carrick. Successful farming. v.40, no.6. June 1942. p.18, 24-25, 60.

Farmers can still build. By C. H. Jefferson. Michigan farmer. v.199, no.11. June 6, 1942. p.309, 312.

Farm labor.

Manpower in the big wheat harvest. By Josiah C. Folsom and Robert M. Cullum. Agricultural situation. v.26, no.6. June 1942. p.20-21.

Save labor in growing crops. By E. Van Alstine and H. W. Riley. Ithaca, N.Y., 1942. 4p. New York state college of agriculture. Cornell extension bulletin. Bulletin no. 505.

Farm machinery and equipment.

Combine harvesting! By J. K. MacKenzie. Farm and Ranch Review.
v.38, no.6. June 1942. p.26, 30. Reviews factors in
successful operation.

Combine vs. binder-separator harvesting for quality barley. By
J. W. Thayer, Jr. Quarterly bulletin, Michigan agricultural
experiment station. v.24., no.4. May 1942. p.294-298.

Cultivating the beet crop. Sugar beet. v.3, no.3. June
1942. p.13.

Efficient use of farm production equipment. By H. H. Musselman.
East Lansing, Mich., 1942. 16p. Michigan. Agricultural
experiment station. Circular bulletin no. 183.

Epoch-making invention for sweet potato growers. By C. L. Fitch.
Market growers journal. v.70, no.10. May 15, 1942.
p.202. Machine for loosening sweet potatoes and cutting
their crosswise and endwise vines. One man works at five miles
per hour. With old system, this operation required three men
working at one mile per hour, using sickles attached to hoe
handles. This is Seright Attachment for sweet potato harvest-
ing. It is hung beneath small standard farm tractors. Cutting
hook whirls on bar and clears itself.

Guayule legislation. Chemurgic digest. v.1, no.9. May
15, 1942. p.70. Gives illustration of shrub digger and
harvester.

Maintenance and repair of agricultural implements by arc welding.
Implement and machinery review. v.68, no.805. May 1,
1942. p.56-57.

Mechanical injury of apples during harvest and grading. By C. W.
Ellenwood. In Seventieth annual report of the secretary of
the State horticultural society of Michigan for the year 1940.
Lansing, Mich., 1941. p.59-67.

Mechanization of agriculture and its social implications. By
Arthur Lutz. In Seventy-first annual report of the secretary
of the State horticultural society of Michigan for the year
1941. Lansing, Mich., 1942. p.25-29.

Mowing machine service. By J. B. Kelley. Implement and tractor.
v.57, no.12. June 6, 1942. p.24-25.

Mowing machines: Repair and adjustment. By J. B. Kelley.
Lexington, Ky., 1942. 16p. Kentucky. College of agri-
culture and home economics. Extension service. Circular no.
375.

Farm machinery and equipment (Cont'd.)

1941 Sales break all records. Better farm equipment and methods.
v.14, no.5. May-June 1942. p.4-5. Table shows farm
equipment and related products manufactured and sold--Value by
Classes: 1941, 1940, and 1939.

Recondition and adjust. By M. G. Huber. New England Home-
stead. v.115, no.11. May 30, 1942. p.3,6.
Machines are sometimes discarded that could still be used if
few simple adjustments or repairs were made.

Sheared sugar beet seed investigations. By Roy Bainer.
National beet grower. v.10, no.9. May 1942. p.1,5.

Tar coating on cornpicker rolls aids in gripping stalks. Popular
mechanics. v.78, no.1. July, 1942. p.137. When
harvesting dry corn with picker, snapping rolls sometimes acquire
glass-smooth polish, which causes them to lose normal grip on
stalks. This interferes with snapping action and tends to
break dry stalks into short lengths which often clog machine.
To avoid this trouble, one farmer coats rollers at regular
intervals with thin film of hot tar. Tar is kept warm enough
to remain in liquid state by placing it in can, which is wired
to side of tractor muffler.

To get the most out of cultivators. By Gilbert S. Watts.
Pennsylvania farmer. v.125, no.11. May 23, 1942.
p.321.

Windrow your grain crop before combining. By F. W. Duffee.
Wisconsin agriculturist and farmer. v.69, no.12. June
13, 1942. p.15.

Wurtele cane harvester. Sugar. v.37, no.6. June 1942.
p.21-23. New answer to mechanical harvesting problem
offered by tractor-mounted light machine which cuts and loads
cane. Pre-stripping required.

Farm power.

Power of the horse. By Leon Van Meldert. Farmers digest.
v.6, no.2. June 1942. p.64-68.

Feed grinders and grinding.

Cost of grinding feed grains with electric feed grinders. By
Armin J. Hill. Bozeman, Montana. 1942. 5p. mimeographed.
Montana. Agricultural experiment station. Mimeographed circular
no. 35.

Feed grinders and grinding (Cont'd.).

Effect of fineness of grinding grain on milk production. By T. M. Olson. Brookings, S.D., 1942. 8p. South Dakota. Agricultural experiment station. Bulletin no. 358.

Fence posts.

Treating fence posts with chromated zinc chloride. By W. C. Nettles. Agricultural news letter. v.10, no.3. May-June, 1942. p.65-66.

Fences.

Fences; authentic colonial designs from old Williamsburg, adapted for modern small homes. By Carl T. Sigmand William J. Ward, Jr. Popular science. v.141, no.1. July 1942. p.HW65-HW70.

Fibers.

Plant fibers in wartime. By Harry T. Edwards. Agriculture in the Americas. v.2, no.6. June 1942. p.103-108. Hard fibers. Soft fibers. Kapok, the seed-pod fiber. Substitute fibers.

Western hemisphere as source of industrial fibers. By Ruth C. Leslie. Domestic commerce. v.29, no.24. June 11, 1942. p.12-13.

Fire protection.

Fire must not destroy! By Art Page. Prairie farmer. v.114, no.11. May 30, 1942. p.1,12.

Flax.

Flax and its products, production and utilization. Textile foundation, Ind. Washington, D.C., Textile foundation, 1942. 30p.

Handling New Zealand's linen flax crop. New Zealand farmer weekly. v.63, no.2. March 26, 1942. p.4-5.

Flood control.

Flood control. In First progress report of the State of Louisiana. Department of public works. Activities and functions of engineering, planning, housing and aeronautics in Louisiana from January 1, 1940 to December 31, 1941. Baton Rouge, La., 1942. p.19-28.

Flood control (Cont'd.).

Flood control at Franklin Falls. By J. H. Cornell. DuPont
magazine. v.36, nos.6-7. June-July 1942. p.12-14,24.

Major flood control acts - 1928 to 1941. In First progress report
of the State of Louisiana, Department of public works. Activities
and functions of engineering, planning, housing and aeronautics
in Louisiana from January 1, 1940 to December 31, 1941.
Baton Rouge, La., 1942. p.252.

Flow of water.

Flow tests on thirty-inch steel pipe, lines with Bitumastic enamel in
1932. By J. D. Carpenter and George M. Roads, Jr. Journal
of the New England water works assoc. v.56, no.1. March
1942. p.8-13.

Importance of considering side-wall friction in bed-load investiga-
tions. By Joe W. Johnson. Civil engineering. v.12,
no.6. June 1942. p.329-331.

Fuels.

Fuel wood from farm woodlands. By A. B. Rocknagel and J. D. Pond.
Ithaca, N.Y., 1942. 4p. New York state college of agri-
culture. Cornell extension bulletin. Bulletin no. 495.

Hay.

New methods save labor in haying. Capper's farmer. v.53, no.5.
May 1942. p.8-9.

...Of 13 Ways of making hay. Farmers digest. v.6, no.2.
June 1942. p.1-4.

Thoughts on haymaking. By J. R. B. Dickey. Pennsylvania
farmer. v.126, no.12. June 13, 1942. p.5,18.

Heating.

Measurement of the physical properties of the thermal environment.
Report of the ASHVE research technical advisory committee on
instruments. Heating, piping & air conditioning. v.14,
no.6. June 1942. p.382-385.

Method of compiling tables for intermittent heating. By Elmer G.
Smith. Heating, piping & air conditioning. v.14, no.6.
June 1942. p.386-390.

Heating (Cont'd.).

Performance of a forced warm-air heating system as affected by changes in volume and temperature of air recirculated. By A. P. Kratz and S. Konzo. Heating, piping and air conditioning. V.14, no.6. June 1942. p.375-381. This two-year investigation reveals seven significant factors in performance of forced warm-air heating system under stoker operation. Data developed will be helpful to designing engineer in selecting and checking design conditions for plant, estimating effect on comfort of varying rates of air change; intermittent operation, air deliveries, duct system and room temperature gradients.

Unit heaters for industrial plants. Architectural record. v.91, no.6. June 1942. p.73-78. 1. Types, heat sources, boiler capacities. 2. Characteristics, locations. 3. Selection data, capacities. 4. Controls, fresh air connections. 5. Pipe connections. 6. Louvres, grilles & deflectors.

Houses.

Revolution in house-building. By Douglas Haskell. Harpers magazine. v.185, no.1105. June 1942. p.47-54.

Rural housing. In First progress report of the State of Louisiana, Department of public works. Activities and functions of engineering, planning, housing and aeronautics in Louisiana from January 1, 1940 to December 31, 1941. Baton Rouge, La., 1942. p.161-166.

Houses, Repairing.

Keeping your house in repair. By A. F. Collins. New York. D. Appleton co., 1941. 314p.

Humidity.

Humidity control in underground bombproof spaces. By Edward Ledoux. Heating, piping & air conditioning. v.14, no.6. June 1942. p.364-366. Bulk of this discussion bears on wall evaporation. Stresses importance of this factor and how to cope with it; other sources of humidity are merely mentioned because their handling is just usual air conditioning.

Hydraulics.

Hydraulics of steady flow in open channels. By Sherman M. Woodward and Chesley J. Posey. New York, John Wiley & Sons, Inc., 1941. 151p.

Hydrology.

Development of the science of river measurement hydrology. By
John C. Hoyt. Civil engineering. v.12, no.6. June
1942. p.324-326.

Hydrologic data, Blacklands experimental watershed, Waco, Texas,
1937-1939. Washington, D. C., U. S. Govt. print. off., 1942.
197p. U. S. Department of agriculture. Hydrologic bulletin
no. 2.

Hydrologic data; Central great plains experimental watershed, Hastings,
Nebraska, 1938-40. By Hydrologic division Office of research,
Soil conservation service. Washington, D.C., U.S. Govt.
print. off., 1942. 148p. U.S. Dept. of agriculture.
Hydrologic bulletin no. 3.

Hydrologic studies and measurement of runoff from small watersheds.
In Research solves farm problems. Report of the director for
the year ending June 30, 1941. Purdue university, Agricultural
experiment station. Lafayette, Ind., 1942. p.22.

Income.

Family income and expenditures, Southeast region. Part I, Family
income. By Dorothy S. Brady and others. Washington, D.C.,
1941. 208 p. U.S. Department of agriculture. Miscel-
laneous publication no. 462.

Insulation.

Proper insulation can cut refrigeration costs in frozen food storage
boxes. By Harvey B. Lindsay. Western frozen foods.
v.3, no.6. April 1942. p.3-4.

Refrigerating substitute for cork. Chemurgic digest. v.1,
no.10. May 30, 1942. p.80. Known as Celo-block.
Made from sugar cane stalks.

Specific heat of thermal insulating materials. By Gordon B. Wilkes
and Carl O. Wood. Heating, piping & air conditioning.
v.14, no.6. June 1942. p.370-374. In order to provide
data which has thus far been lacking, authors have experimentally
determined specific heat of fifteen or more common insulating
materials. Mean temperature range within which materials are
generally used. This range was from 80 to 212 F for organic
insulators and from 80 to 1350 F for higher temperature materials.
True specific heats were calculated for materials used above 212 F.
Discussion of importance of heat capacity as applied to thermal
insulation is included.

Insulation (Cont'd.).

Treatment of planer shavings and sawdust for use in insulation.
Canada Lumberman. v.62, no.11. June 1, 1942. p.17-18.
Summary of Investigation--Treatment for decay, fireproofing
and against scourage of rats.

Irrigation.

Cutting costs of irrigation. By Joe Crosby. California culti-
vator. v.89, no.11. May 30, 1942. p.267, 283.

Effect of irrigation waters and cropping on the nutrients and ex-
changeable bases of desert soils. By C. W. Botkin and E. C.
Smith. State College, N.M., 1942. 28p. New Mexico.
Agricultural experiment station. Bulletin No. 292 (Technical).

Efficient and economical irrigation. By Dooley P. Wheeler.
California cultivator. v.89, no.11. May 30, 1942.
p.267, 283.

Efficient irrigation of sugar beets. By Vaughn E. Hansen.
Sugar beet. v.3, no.3. June 1942. p.16-19.

Handy implement for irrigators. By Mark R. Kulp. Sugar beet.
v.3, no.3. June 1942. p.27. Discusses soil probe.

Irrigation of truck crops. California cultivator. v.89, no.11.
May 30, 1942. p.283.

Irrigation requirements of cotton on clay loam soils in the Salt
river valley. By Karl Harris and R. S. Hawkins. Tucson,
Ariz., 1942. 421-459p. Arizona. Agricultural experiment
station. Bulletin no. 181.

Sprinkling sugar beets. California cultivator. v.89, no.11.
May 30, 1942. p.279

Taking the guess out of irrigation. California cultivator.
v.89, no.11. May 30, 1942. p.270.

Land utilization.

Land use classification in the special areas of Alberta and in Rosen-
heim and Acadia valley. By A. Stewart and W. D. Porter.
Ottawa, Canada, 1942. 73p. Canada. Department of agri-
culture. Publication no. 731.

Miscellaneous.

Report of the Chief of engineers, U.S. Army. Washington, D.C.,
Govt. print. off., 1941. 3v.

Paints and painting.

Measurement of the fading rate of paints. By Arnold J. Eickhoff
and Richard S. Hunter. Journal of research. v.28, no.6.
June 1942. p.773-793.

Painting on the farm. By C. H. Christopherson and Norton Ives.
University Farm, Minn., 1942. 23p. Minnesota University.
Agricultural extension service. Extension bulletin no. 233.

Pest control.

Fumigation by smokes with special reference to derris and pyrethrum:
A survey of recent literature. By S. T. P. Brightwell.
Bulletin of the Imperial institute. v.40, no.1. January-
March 1942. p.6-10.

Grasshopper control aided by tillage methods. By J. A. Munro and
H. S. Telford. Fargo, N.D., 1942. 14p. North Dakota.
Agricultural experiment station. Bulletin no. 309.

Lights vs. European corn borer. In Research solves farm problems.
Report of the director for the year ending June 30, 1941.
Purdue university, Agricultural experiment station. Lafayette,
Ind., 1942. p.61-62.

Peppermint anthracnose controlled by clean plowing. In Research
solves farm problems. Report of the director for the year ending
June 30, 1941. Purdue university, Agricultural experiment station.
Lafayette, Ind., 1942. p.49.

Plowing for corn borer control. In Research solves farm problems.
Report of the director for the year ending June 30, 1941.
Purdue university, Agricultural experiment station. Lafayette,
Ind., 1942. p.62.

Pipes and piping.

Wood pipe can also serve. By Robert Turner. Military engineer.
v.34, no.200. June 1942. p.266-268.

Flowing.

Plow adjustment. By B. A. Jennings. Revised. Ithaca, N.Y.,
1942. 36p. New York state college of agriculture. Cor-
nell extension bulletin. Bulletin no. 381.

Studies with Purdue plow trash shields. In Research solves farm
problems. Report of the director for the year ending June 30,
1941. Purdue university, Agricultural experiment station.
Lafayette, Ind., 1942. p.23.

Plowing (Cont'd.).

Study of a fertilizer attachment for plows. In Research solves farm problems. Report of the director for the year ending June 30, 1941. Purdue university, Agricultural experiment station. Lafayette, Ind., 1942. p.25-26.

Under-surface tillage. Farm implement news. v.63, no.11. May 28, 1942. p.22. In this under-surface tillage, soil is worked beneath surface, and any crop residue on top is left in place practically undisturbed. Result is what many experimenters call surface mulching, and what we have dubbed trash farming. Objective is two-fold. First water is conserved because it penetrates readily down vegetative stem channels instead of running off surface. Second, trash blanket on surface resists most effectively both wind and water erosion.

Poultry houses and equipment.

Essentials of poultry sanitation. By Andrew W. Uron. Columbia, Mo., 1942. 8p. Missouri. College of agriculture. Agricultural extension service. Circular no. 461.

Poultry housing studies. In Research solves farm problems. Report of the director for the year ending June 30, 1941. Purdue university, Agricultural experiment station. Lafayette, Ind., 1942. p.95-96.

Rammed earth poultry house work continued. In Farm research in South Dakota. Fifty-fourth annual report July 1, 1940 to June 30, 1941. South Dakota Agricultural experiment station. Brookings, S.D., 1942. p.69.

Range equipment for pullets. By Cora Cooke. University Farm, Minn., 1942. folder. Minnesota. University. Agricultural extension service. Extension pamphlet no. 98.

Summer camp for pullets. Wisconsin agriculturist and farmer. v.69, no.11. May 30, 1942. p.13.

Summer laying shelters. By G. T. Klein. Amherst, Mass., 1942. 7p. Massachusetts. State college. Extension service. Leaflet no. 202.

Producer gas.

Producer-gas from wood. Canada lumberman. v.62, no.11. June 1, 1942. p.19. Eminently suited for tractors and trucks running short hauls.

Quick freezing.

Principal quick freezing methods--A brief outline for the newcomer.
Quick frozen foods and the locker plant. v.4, no.10.
May 1942. p.12-14. Shows various methods now being used
for quick freezing of foods.

Refrigeration.

Diesel-electric power generation for frozen food plants. By John
E. Hubel. Refrigerating engineering. v.43, no.6.
June 1942. p.354-356.

Mechanical refrigeration of milk with units driven by gasoline engines
and electric motors. In Research solves farm problems.
Report of the director for the year ending June 30, 1941.
Purdue university Agricultural experiment station. Lafayette,
Ind., 1942. p.27.

Notes on the application of refrigeration to the Australian fishing
industry. Melbourne, 1942. 18p. Australia. Council
for scientific and industrial research. Division of food preser-
vation and transport. Circular no. 4-P.

Proposed A.S.R.E. Standard methods of rating and testing water and
brine coolers by Joint committee on rating commercial refrigerat-
ing equipment. Refrigerating engineering. v.43, no.6.
June 1942. A.S.R.E. Circular No. 24.

Proposed A.S.R.E. Standard methods of rating and testing forced-
circulation air coolers for commercial and industrial refrigera-
tion by Joint committee on rating commercial refrigerating equip-
ment. Refrigerating engineering. v.43, no.6. June
1942. A.S.R.E. Circular No. 25.

Refrigerating machinery design and the war. By George W. Meck.
Refrigerating engineering. v.43, no.6. June 1942.
p.349-350. Survey of what lies ahead for designer of re-
frigerating machinery. Presents necessary use of new materials,
and predicts new and better ways of doing things at progressively
lower costs.

Study of equipment and methods for freezing and storing farm produce.
In Research solves farm problems. Report of the director for
the year ending June 30, 1941. Purdue university, Agricultural
experiment station. Lafayette, Ind., 1942. p.77.

Use of mechanical refrigeration for cooling and holding eggs on the
farm. In Research solves farm problems. Report of the
director for the year ending June 30, 1941. Purdue university,
Agricultural experiment station. Lafayette, Ind., 1942.
p.27-28.

Refrigerator trucks.

Application of plate type evaporators to truck bodies. By Albert
F. Sawyer. Refrigerating engineering. v.43, no.6.
June 1942. p.349-350.

Research.

Future of research. Endeavor. v.1, no.2. April 1942.
p.49-50.

Roofs.

Roof coating manual. Compiled by H. S. Klund. Washington, D.C.,
1942. 200-218p. National paint, varnish and lacquer
assoc., Inc., Scientific section. Circular no. 642.

Survey of roofing materials in the south central states. By Hubert
R. Snoke and Leo J. Waldron. Washington, D.C., 1942. 19p.
National bureau of standards. Building materials and structures.
Report BMS 84.

Rope.

Report on the cordage, rope and twine industry in Canada, 1941.
Canada. Department of trade and commerce. Dominion bureau of
statistics. Census of industry. General manufacturers branch.
Ottawa, 1942. 11p. mimeographed.

Your Manila rope--Nurse it carefully. Power. v.86, no.6.
June 1942. p.393-395. Present stocks of Philippine
fiber must last for duration. Care for rope you now have and
intelligent use of substitutes will get you by safely.

Silos.

Low cost silos. By David S. Weaver and others. Raleigh, N.C.,
1942. Folder. North Carolina. Agricultural extension
service. Extension folder no. 56.

Saving steel in silos. Farmer. v.60, no.11. May 30, 1942.
p.4. Masonry types.

Stop those silo leaks. By G. E. Shier. Ohio farmer. v.189,
no.11. June 6, 1942. p.6.

Silt.

Keeping debris out of reservoirs by soil erosion control. Engineer-
ing news-record. v.128, no.25. June 18, 1942. p.980.

Soybean.

Soybean oil and the war. Washington, D.C., 1942. 4p.
USDA - BAE Ext. flier no. 5.

Sprays and spraying.

Cost of operating portable spraying. By C. W. Ellenwood. In
seventieth annual report of the secretary of the state horti-
cultural society of Michigan for the year 1940. Lansing,
Mich., 1941. p.78-83.

Power consumption and comparative costs of stationary and portable
spraying and stationary vs. portable spraying plants. In
Research solves farm problems. Report of the director for the
year ending June 30, 1941. Purdue university, Agricultural
experiment station. Lafayette, Ind., 1942. p.80-81.

Storage of farm produce.

Factors entering into the storage of shelled corn with high moisture
content in small wire-sided bins. In Research solves farm
problems. Report of the director for the year ending June 30,
1941. Purdue university, Agricultural experiment station.
Lafayette, Ind., 1942. p.23.

Farmers need dealers' help to solve grain storage problems. Ameri-
can lumberman. no. 3231. May 30, 1942. p.22-26.

Freezer burning prevented by water. By Earl W. Henderson.
Quarterly bulletin, Michigan agricultural experiment station.
v.24, no.4. May 1942. p.304-307. Object of study
was to determine amount of moisture lost in cold storage by
cuts of poultry subjected to two treatments during freezing,
i.e. glazed and ordinary close wrapping in waxed paper.

Grain storage shortage is critical. Missouri farmer. v.34,
no.11. June 1, 1942. p.5. Discussion of grain stor-
age bins.

How to build a basement cold storage room. American builder.
v.64, no.6. June 1942. p.63. Gives details.

How to relieve those bulging bins. By F. C. Fenton. Success-
ful farming. v.40, no.6. June 1942. p.11, 40-41.

Management of an air-cooled storage cellar. In Research solves
farm problems. Report of the director for the year ending
June 30, 1941. Purdue university, Agricultural experiment
station. Lafayette, Ind., 1942. p.80.

More storage needed. Nebraska farmer. v.84, no.11. May 30,
1942. p.14.

Storage of farm produce (Cont'd.).

Some experiences with ice cooled and refrigerated storage plants.
In seventieth annual report of the secretary of the state horticultural society of Michigan for the year 1940. Lansing, Mich., 1941. p.33-44.

Storage shortage looms. By Ray T. Kelsey. Ohio farmer.
v.189, no.11. June 6, 1942. p.6-7.

Two helps with grain storage. Washington farmer. v.67, no.12.
June 4, 1942. p.6.

Vegetable storage. By Arthur H. Schulz. Fargo, N.D., 1942.
folder. North Dakota agricultural college. Extension service. Special circular A-21.

Swine houses and equipment.

Self-feeders cut cost of pork production. By G. Bohstedt and
others. Madison, Wis., 1942. 4p. Wisconsin. College
of agriculture. Extension service. Stencil circular no. 227.

Tires.

Keeping the wheels under agriculture. Consumers' guide. v.8,
no.14. May 15, 1942. p.2-3.

Tractors.

Better cooling increases tractor life. By C. E. Packer. Imple-
ment and Tractor. v.57, no.12. June 6, 1942. p.22-23,
44-45.

Getting the most from your tractor. By John M. Ferguson and J. W.
Martin. Manhattan, Kansas, 1942. 11p. mimeographed.
Kansas state college of agriculture and applied science. Extension service. Extension M circular no. 43.

Tune up the tractor. By W. F. Millier. Ithaca, N.Y., 1942.
8p. New York state college of agriculture. Cornell extension bulletin. Bulletin no. 491.

Trailers.

Build and test rubber tired farm trailers. In Farm research in
South Dakota. Fifty-fourth annual report, July 1, 1940 to June
30, 1941, South Dakota Agricultural experiment station.
Brookings, S.D., 1942. p.65.

